

BOTTOM SOLDER MASK

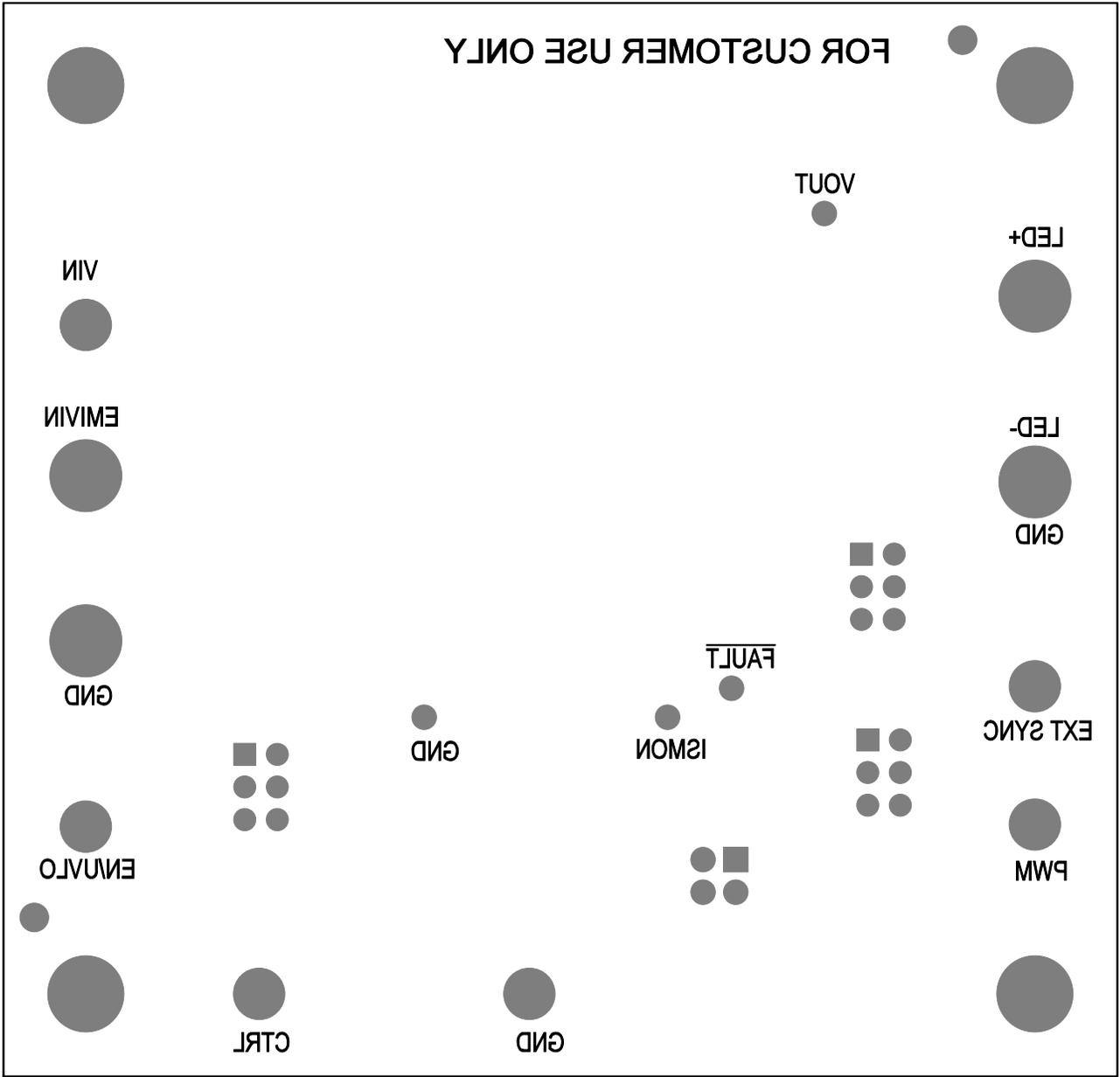
ANALOG DEVICES

DATE: 10-6-2021

EVAL-LT8376-AZ-3, LT8376RV

ANALOG DEVICES								
MANUFACTURING BILL OF MATERIALS								
SKU# = EVAL-LT8376-AZ								
IC NO. = LT8376RV								
PCA BOM = 700-EVAL-LT8376-AZ_REV03								
PCA ASS'Y DWG = 705-EVAL-LT8376-AZ_REV03								
PCA SCHEMATIC = 710-EVAL-LT8376-AZ_REV03								
Item Number	Quantity	Part Reference	Description	Manufacturer	Manufacturer PN	Value	PART_NUMBER	BOM Notes
1	1	C1	CAP.,10uF,X7R,50V,10%,1206	SAMSUNG	CL31B106KBHNNNE	10uF	150-1796	NO STUFF C9
2	3	C2,C3,C14	CAP.,4.7uF,X7S,100V,10%,1210	SAMSUNG TDK TDK MURATA	CL32Y475KCVZW6E C3225X7S2A475K200AB C3225X7S2A475K200AE GRM32DC72A475KE01L	4.7uF	150-2270	
3	3	C4,C5,C6	CAP.,0.47uF,X7R,100V,10%,0805	AVX MURATA	08051C474KAZ2A GRM21BR72A474KA73L	0.47uF	150-2346	
4	1	C7	CAP.,2.2uF,X7R,10V,10%,0603	MURATA TDK AVX YAGEO	GRM188R71A225KE15D C1608X7R1A225K080AC 0603ZC225KAT2A CC0603KRX7R6BB225	2.2uF	150-2083	
5	1	C8	CAP.,2.2uF,X5R,10V,20%,0402	WURTH ELEKTRONIK	885012105013	2.2uF	150-2543	
6	1	C11	CAP.,100pF,COG,50V,5%,0402,AEC-Q200	MURATA TDK	GCM1555C1H101JA16D CGJ2B2COG1H101J050BA	100pF	150-2673	
7	1	C12	CAP.,0.01uF,X7R,25V,10%,0402,AEC-Q200	TAIYO YUDEN	TMK105B7103KVHF	0.01uF	150-0954	
8	1	C13	CAP.,0.1uF,X7R,100V,10%,0603	AVX MURATA SAMSUNG	06031C104KAT2A GRM188R72A104KA35D CL10B104KC8NNNC	0.1uF	150-3294	
9	1	C15	CAP.,0.1uF,X7R,50V,10%,0402,AEC-Q200	MURATA TAIYO YUDEN TDK	GCM155R71H104KE02D UMK105B7104KVHF CGA2B3X7R1H104K050BB	0.1uF	150-2620	
10	1	C16	CAP.,1uF,X5R,10V,10%,0402	MURATA SAMSUNG TAIYO YUDEN AVX TDK	GRM155R61A105KE15D CL05A105KP5NNNC LMK105BJ105KV-F 0402ZD105KAT2A C1005X5R1A105K050BB	1uF	150-3493	
11	1	C17	CAP.,47pF,COG,50V,10%,0402	AVX KEMET	04025A470KAT2A C0402C470K5GACTU	47pF	150-3309	
12	0	C19,C22	CAP., OPTION, 0402			OPT	150-3148	NO STUFF
13	1	C20	CAP.,0.1uF,X5R,100V,10%,0402,SMD	MURATA	GRM155R62A104KE14D	0.1uF	TMP-7802	
14	1	C24	CAP.,47uF,ALUM ELECT,63V,20%,8x10.2mm,F,SMD,RADIAL	PANASONIC	EEEA1J470UP	47uF	150-1798	
15	1	C26	CAP.,2.2uF,X5R,25V,10%,0603,AEC-Q200	TAIYO YUDEN	TMK107BBJ225KAHT	2.2uF	150-0955	
16	6	E1,E6,E7,E8,E9,E10	TEST POINT,TURRET,0.064" MTG. HOLE,PCB 0.062" THK	MILL-MAX	2308-2-00-80-00-00-07-0	TEST POINT	260-0004	
17	4	E2,E3,E4,E5	TEST POINT,TURRET,0.094" MTG. HOLE,PCB 0.062" THK	MILL-MAX	2501-2-00-80-00-00-07-0	TEST POINT	260-0003	
18	0	FB1	IND.,1k OHM@100MHz,FERRITE BEAD,25%,1.5A,150mOhms,0805	TDK	MPZ2012S102AT000	1k OHM@100MHz	200-0291	NO STUFF
19	1	FB2	IND.,600 OHMS@100MHz,FERRITE BEAD,25%,2A,100mOHMS,0805	TDK	MPZ2012S601AT000	600 OHMS@100MHz	200-0199	
20	3	JP1,JP2,JP3	CONN.,HDR,MALE,2x3,2mm,VERT,ST,THT	WURTH ELEKTRONIK	62000621121	HDR	250-0483	
21	1	JP4	CONN.,HDR,MALE,2x2,2mm,VERT,STR,THT	WURTH ELEKTRONIK	62000421121	HDR	250-0522	
22	1	L1	IND.,47uH,PWR,SHIELDED,20%,3.1A,167mOHMS,4040DD,IHLE-5A Ser	VISHAY	IHLE4040DDER470M5A	47uH	200-0885	
23	1	L2	IND.,15uH,PWD,20%,2.9A,109mOHMS,4mmX4mm,AEC-Q200	COILCRAFT COILCRAFT	XAL4040-153MEB XAL4040-153MEC	15uH	200-0898	
24	1	LB1	LABEL SPEC, DEMO BOARD SERIAL NUMBER	BRADY	THT-96-717-10	LABEL	895-0154	
25	1	M1	XSTR.,MOSFET,P-CH,60V,16A,PowerPAK 1212-8,AEC-Q101	VISHAY	SQ7415AEN-T1-GE3	SQ7415AEN	240-0408	
26	4	MP1,MP2,MP3,MP4	STANDOFF,NYLON,SNAP-ON,0.75" (19.1mm)	WURTH ELEKTRONIK	702937000	STANDOFF	763-0030	
27	1	PCB1	PCB, EVAL-LT8376-AZ	ADI APPROVED SUPPLIER	600-EVAL-LT8376-AZ	PCB,600-EVAL-LT8376-AZ	600-EVAL-LT8376-AZ	REV03
28	1	R1	RES.,0.05 OHM,1%,1/2W,1206,SENSE	IRC TT ELECTRONICS	LRC-LR1206LF-01-R050-F LRC-LR1206LF-01-R050-F	0.05	100-0554	
29	1	R2	RES.,12.7k OHMS,1%,1/16W,0402	YAGEO	RC0402FR-0712K7L	12.7k	100-1633	
30	1	R3	RES.,402k OHMS,1%,1/10W,0402,AEC-Q200	PANASONIC	ERJ2RKF4023X	402k	100-0736	
31	1	R4	RES.,16k OHMS,5%,1/16W,0402,AEC-Q200	VISHAY	CRCW040216K0JNED	16k	100-1875	

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PCA SCHEMATIC = 710-EVAL-LT8376-AZ_REV03								
Item Number	Quantity	Part Reference	Description	Manufacturer	Manufacturer PN	Value	PART_NUMBER	BOM Notes
32	1	R5	RES.,287k OHMS,1%,1/16W,0402,AEC-Q200	VISHAY NIC STACKPOLE ELECTRONICS, INC.	CRCW0402287KFKED NRC04F2873TRF RMCF0402FT287K	287k	100-2867	
33	1	R6	RES.,24.9k OHMS,1%,1/16W,0402,AEC-Q200	NIC STACKPOLE ELECTRONICS, INC. VISHAY	NRC04F2492TRF RMCF0402FT24K9 CRCW040224K9FKED	24.9k	100-0242	
34	1	R7	RES.,1M OHM,1%,1/10W,0603,AEC-Q200	NIC PANASONIC VISHAY	NRC06F1004TRF ERJ3EKF1004V CRCW06031M00FKEA	1M	100-0119	
35	2	R8,R15	RES.,100k OHMS,1%,1/16W,0402,AEC-Q200	VISHAY NIC	CRCW0402100KFKED NRC04F1003TRF	100k	100-2396	
36	1	R9	RES.,47k OHMS,5%,1/16W,0402,AEC-Q200	NIC VISHAY	NRC04J473TRF CRCW040247K0JNED	47k	100-2814	
37	1	R10	RES.,100k OHMS,5%,1/16W,0402,AEC-Q200	ROHM VISHAY	MCR01MZPJ104 CRCW0402100KJNED	100k	100-0192	
38	1	R11	RES.,91k OHMS,5%,1/16W,0402,AEC-Q200	NIC VISHAY	NRC04J913TRF CRCW040291K0JNED	91k	100-0520	
39	1	R12	RES.,118k OHMS,1%,1/16W,0402,AEC-Q200	NIC VISHAY	NRC04F1183TRF CRCW0402118KFKED	118k	100-0257	
40	1	R13	RES.,1M OHMS,1%,1/10W,0402	NIC YAGEO	NRC04F1004TRF RC0402FR-071ML	1M	100-0070	
41	1	R14	RES.,2M OHMS,1%,1/16W,0402,AEC-Q200	VISHAY	CRCW04022M00FKED	2M	100-2884	
42	0	R18	RES.,0 OHM,1/16W,0402	NIC ROHM VISHAY YAGEO	NRC04ZOTRF MCR01MZPJ000 CRCW04020000Z0ED RC0402JR-070RL		0 100-0025	NO STUFF
43	0	R19	RES., OPTION, 0603			OPT	100-2374	NO STUFF
44	0	R20	RES., OPTION, 0402			OPT	100-0357	NO STUFF
45	1	STNCL1	TOOL, STENCIL, 700-EVAL-LT8376-AZ	ADI APPROVED SUPPLIER	830-EVAL-LT8376-AZ	TOOL,STENCIL,700-LT8376-	830-EVAL-LT8376-AZ	REV03
46	0	TP1,TP3,TP4	TESTPOINT, PCB COPPER FEATURE	N/A	N/A	COPPER FEATURE PAD	PCBPADS-11	NO STUFF TP1,TP3,TP4
47	0	TP2,TP5,TP6,TP7	TESTPOINT, PCB COPPER FEATURE	N/A	N/A	TEST PAD	PCBPADS-1	NO STUFF TP2,TP5-TP7
48	1	U1	IC,60V 2A, SYNCHRONOUS BUCK LED DRIVER ,LQFN-28	ANALOG DEVICES	LT8376RV#P8F	LT8376	TMP-7777	
49	1	VR1	RES.,100k OHMS,20%,1/4W,SMD 4mm SQ,1-TURN,TOP ADJ.,TRIMPO	BOURNS	3314J-1-104E	100k	103-0025	
50	4	XJP1,XJP2,XJP3,XJP4	CONN.,SHUNT,FEMALE,2-POS,2mm	Würth Elektronik	60800213421	SHUNT	250-0485	

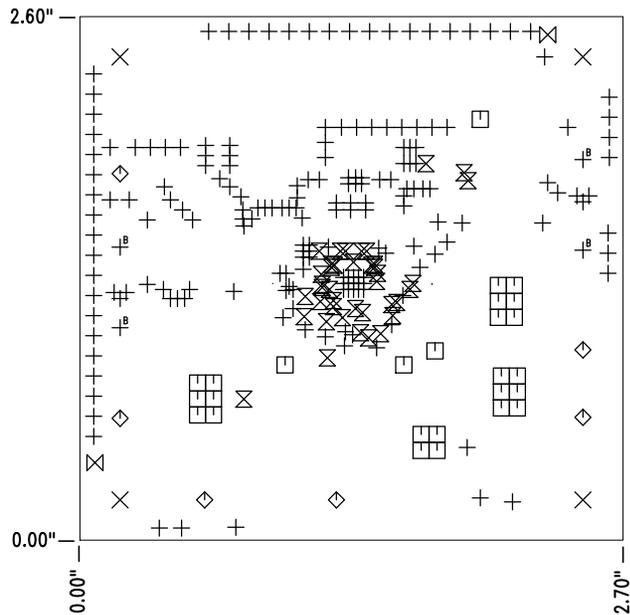


BOTTOM SILKSCREEN

ANALOG DEVICES

DATE: 10-13-2021

EVAL-LT8376-AZ-3, LT8376RV



SIZE	QTY	SYM	PLATED	TOL
0.01	186	+	YES	+/-0.003
0.187	4	×	NO	+/-0.003
0.035	26	□	YES	+/-0.003
0.065	6	◇	YES	+/-0.003
0.006	40	⊗	YES	+/-0.003
0.07	2	⊗	NO	+/-0.003
0.095	4	+ ^B	YES	+/-0.003

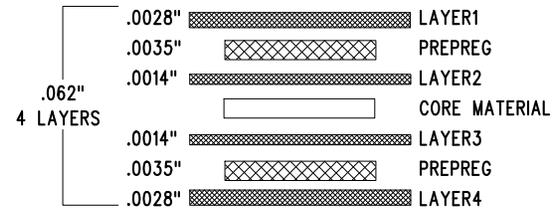
ADDITIONAL REQUIREMENT FOR PROTOTYPE FAB ONLY:

1. OUTGOING INSPECTION REPORT (BASED ON ACTUAL MEASUREMENTS AND CROSS SECTION).

ADDITIONAL REQUIREMENTS FOR PRODUCTION FAB ONLY:

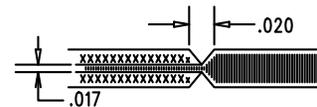
1. PROVIDE COMPLIANCE CERTIFICATES FOR RoHS, REACH AND CONFLICT-FREE MINERALS.
2. SOLDERABILITY BOARD WITH TEST RESULTS.
3. OUTGOING INSPECTION REPORT (BASED ON ACTUAL MEASUREMENTS AND CROSS SECTION).
4. VACUUM PACKED WITH DESICCANT.
5. FULL PANEL WITH NO REJECT

LAYER STRUCTURE

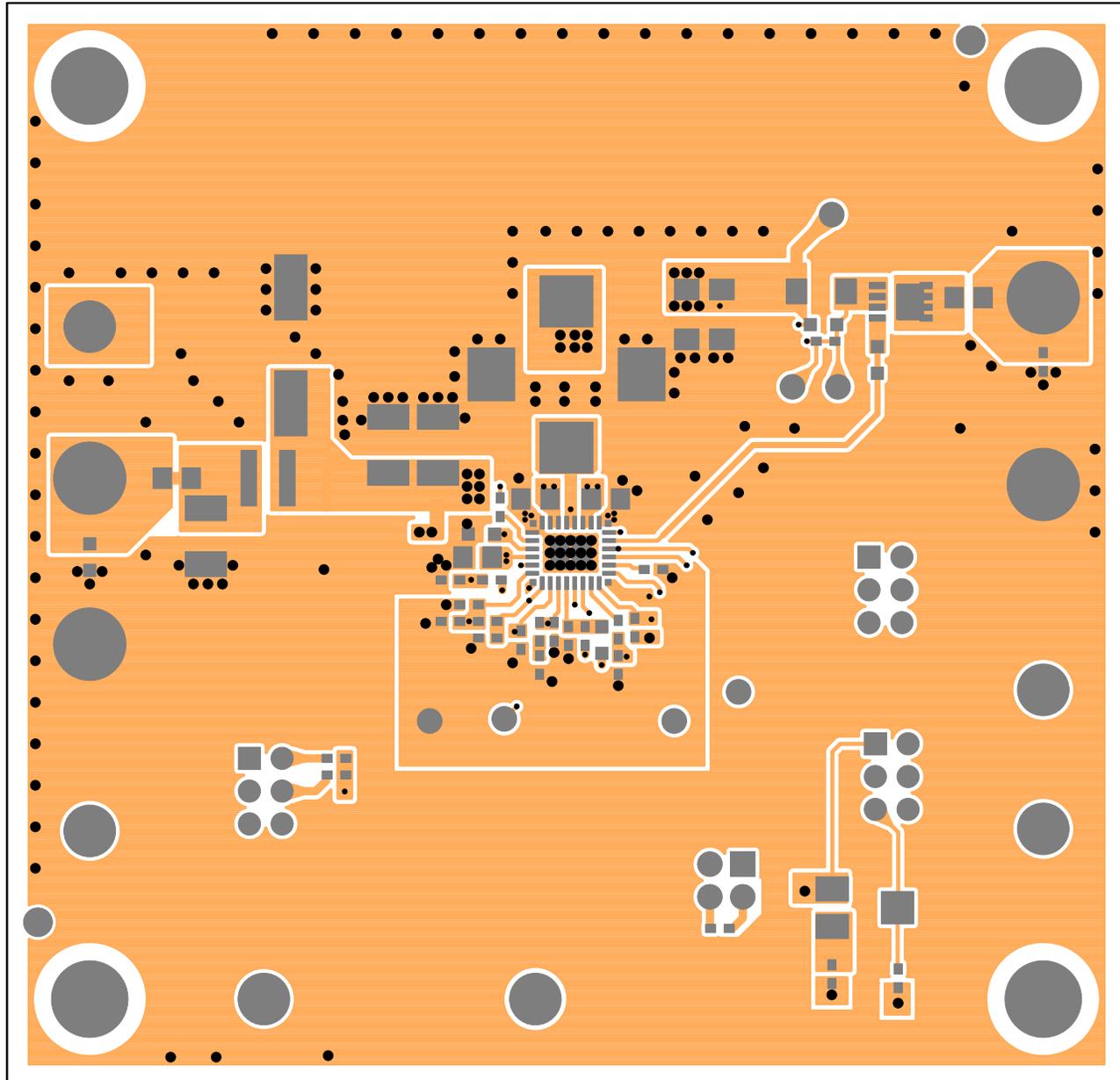


NOTES: UNLESS OTHERWISE SPECIFIED

1. FAB PER IPC-A-600.
2. MATERIAL: -EPOXY FIBERGLASS, NEMA GRADE FR-4
-FINISHED THICKNESS TO BE 0.062" +/- .005"
-TOTAL OF 4 LAYERS WITH 2 OZ. FINISHED CU ON THE OUTER LAYERS AND 1 OZ. CU ON THE INNER LAYERS.
-FLAMMABILITY RATING: 94 V-0 MINIMUM.
3. SIZE: CUT TO DIMENSIONS AND TOLERANCES SHOWN.
0.00" ARE PRIMARY DATUMS.
4. DRILLING: -DRILL HOLES PER SCHEDULE. PLATE THROUGH HOLES WITH COPPER, 0.001" THICK MIN.
-ALL HOLE SIZES ARE SPECIFIED AFTER PLATING.
-HOLE LOCATION TOLERANCES ARE +/-0.003" IN RELATION TO CENTER
-FOR VIAS SIZE LESS THAN 13MILS, VIAS NEED TO BE PLUGGED AND COVERED WITH SOLDERMASK.
5. FINISH: -SMOBC USING LPI BOTH SIDES, COLOR GLOSS GREEN
-GOLD IMMERSION BOTH SIDES.
(LEAD FREE SOLDER CAN BE USED FOR PROTOTYPE)
-FOR SILKSCREEN: BOTH SIDES USE WHITE NON-CONDUCTIVE INK.
6. DO NOT ALTER ARTWORK e.g. TO ADD LOGO OR DATE CODE.
PAD SIZE CAN BE MODIFIED TO MEET END FINISH.
7. PCBs ARE TO BE RoHS COMPLIANT.
8. SCORING FOR PANELIZED PCB:



UNLESS OTHERWISE SPECIFIED		 www.analog.com	
DIMENSIONS ARE IN INCHES TOLERANCES: 0.XX" = ±0.01" 0.XXX" = ±0.005" INTERPRET DIM AND TOL PER ASME Y14.5M-1994 THIRD ANGLE PROJECTION			
TITLE: FABRICATION DRAWING			
60V, 2A SYNCHRONOUS BUCK LED DRIVER			
SIZE	IC NO.	REV	
N/A	LT8376JV EVAL-LT8376-AZ	3	
FILENAME:			SHT 1 OF 1

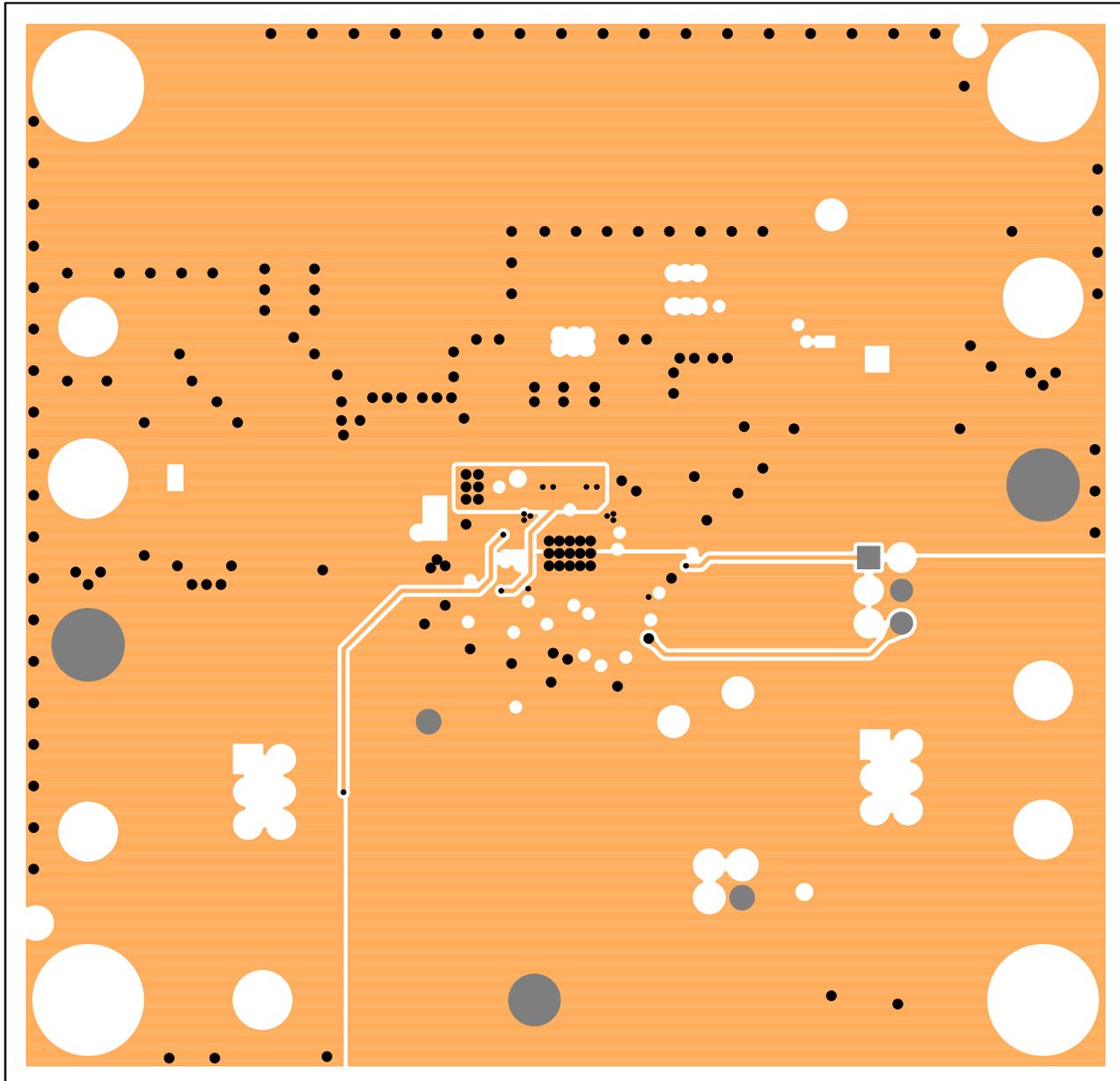


LAYER 1 – TOP LAYER

ANALOG DEVICES

DATE: 10-13-2021

EVAL-LT8376-AZ-3, LT8376RV

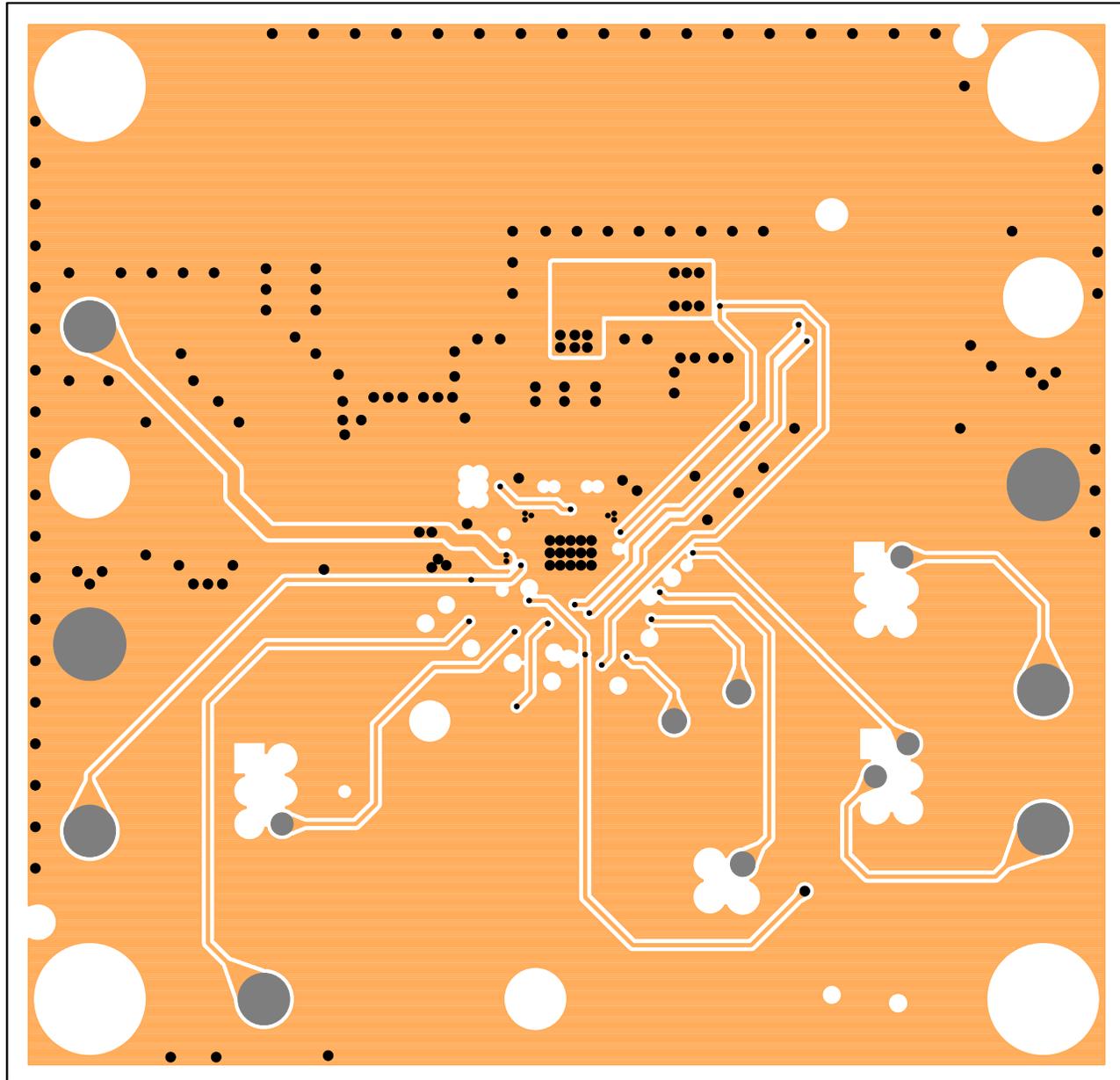


LAYER 2 - GND PLANE 1

ANALOG DEVICES

DATE: 10-6-2021

EVAL-LT8376-AZ-3, LT8376RV

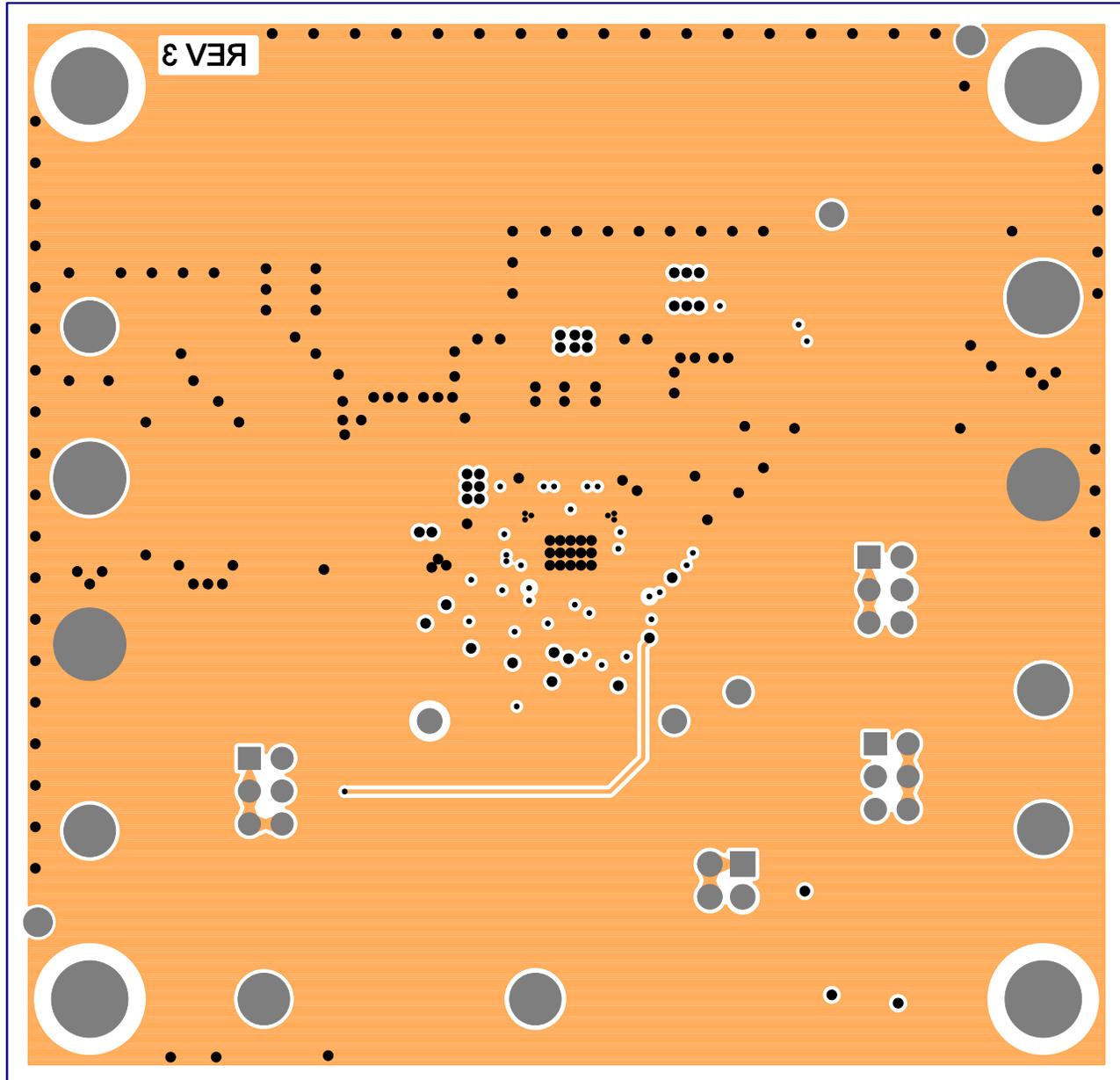


LAYER 3 - SIGNAL

ANALOG DEVICES

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EVAL-LT8376-AZ-3, LT8376RV

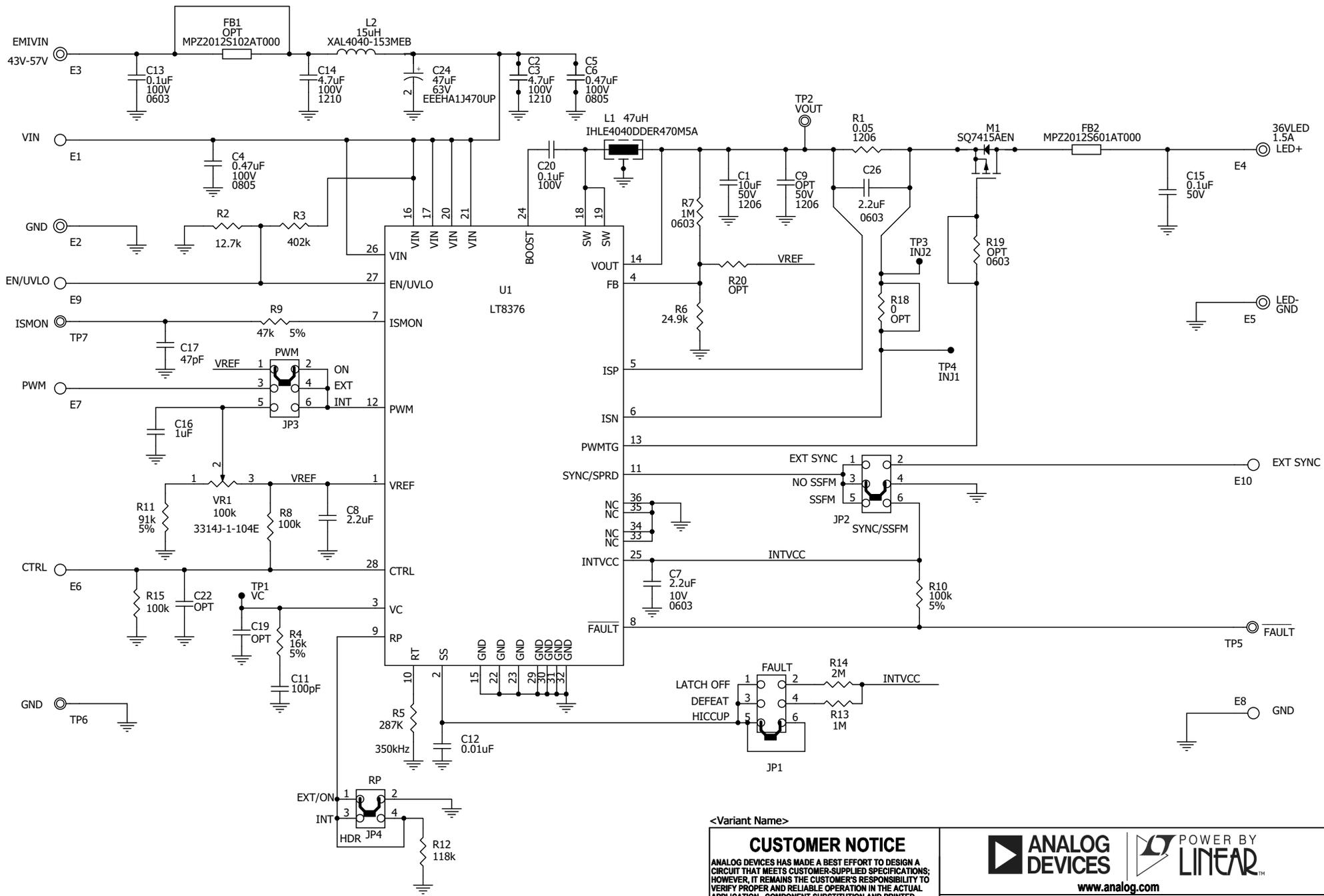


LAYER 4 - BOTTOM LAYER

ANALOG DEVICES

DATE: 10-13-2021

EVAL-LT8376-AZ-3, LT8376RV



NOTE: UNLESS OTHERWISE SPECIFIED

1. ALL RESISTORS ARE 0402, 1%.
ALL CAPACITORS ARE 0402

<Variant Name>

CUSTOMER NOTICE

ANALOG DEVICES HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED SPECIFICATIONS; HOWEVER, IT REMAINS THE CUSTOMER'S RESPONSIBILITY TO VERIFY PROPER AND RELIABLE OPERATION IN THE ACTUAL APPLICATION. COMPONENT SUBSTITUTION AND PRINTED CIRCUIT BOARD LAYOUT MAY SIGNIFICANTLY AFFECT CIRCUIT PERFORMANCE OR RELIABILITY. CONTACT ANALOG DEVICES APPLICATIONS ENGINEERING FOR ASSISTANCE.

THIS CIRCUIT IS PROPRIETARY TO ANALOG DEVICES AND SUPPLIED FOR USE WITH ANALOG DEVICES PARTS.



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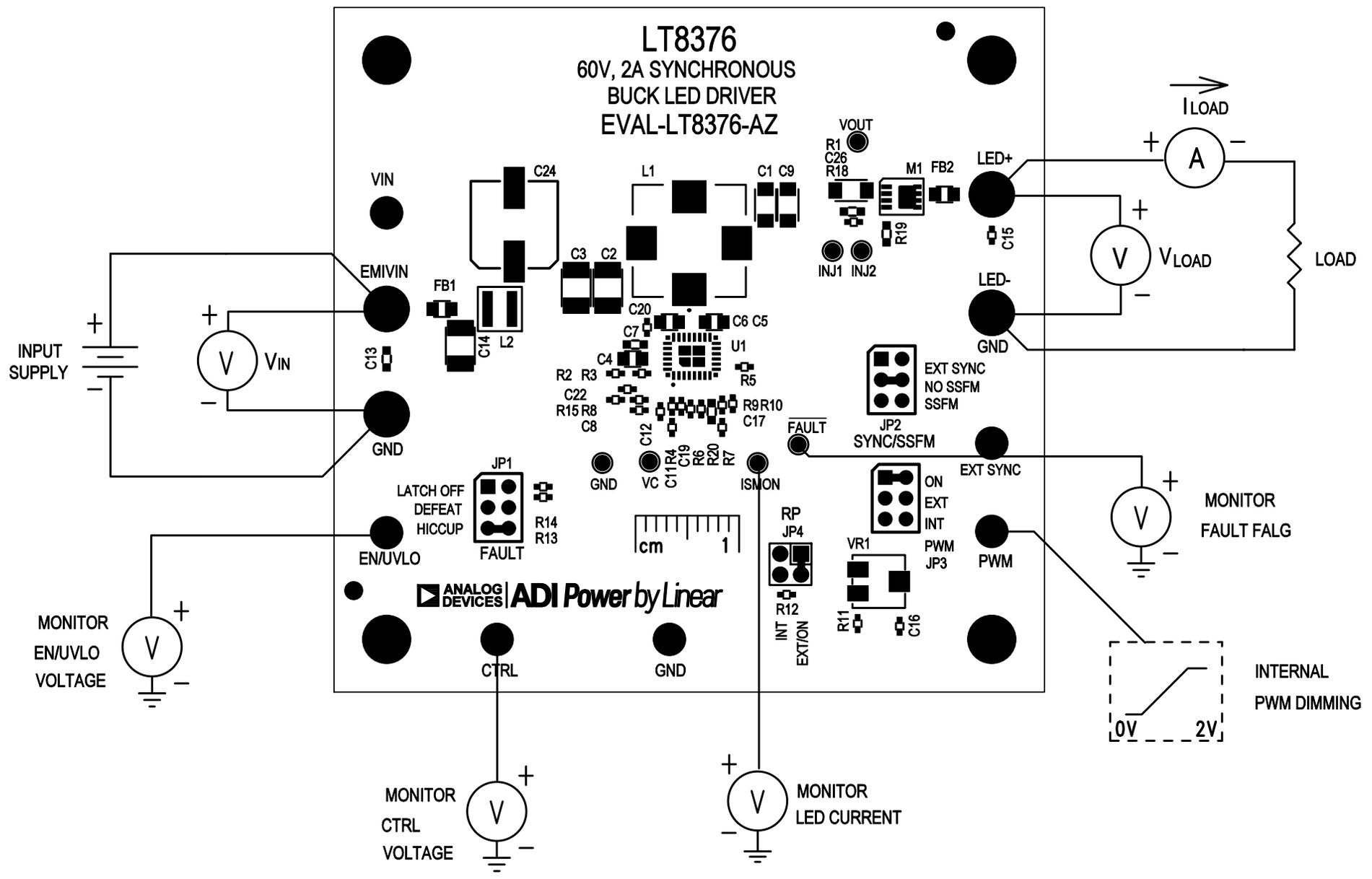
TITLE: SCHEMATIC

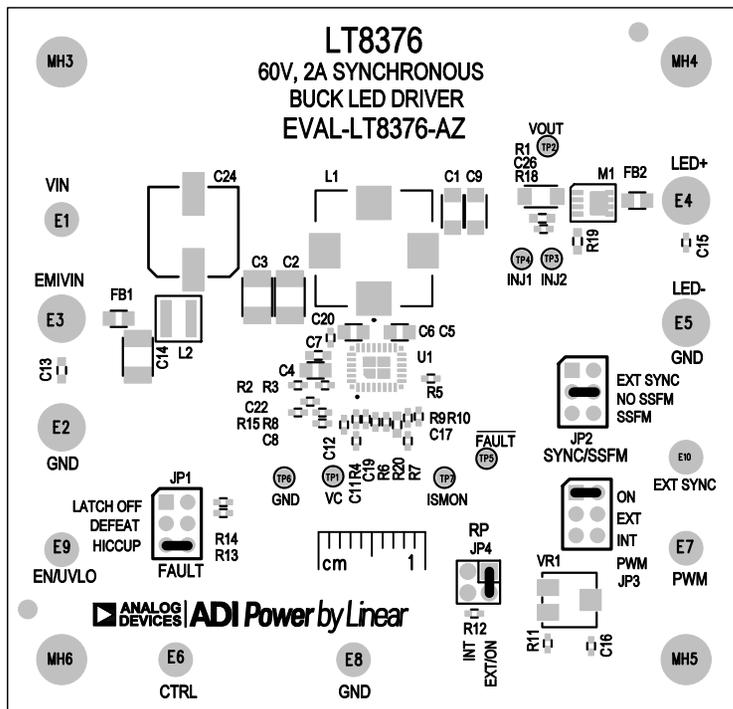
60V, 2A SYNCHRONOUS BUCK LED DRIVER

IC NO.	LT8376RV	SCHEMATIC NO. AND REVISION:	
SKU NO.	EVAL-LT8376-AZ	710-EVAL-LT8376-AZ_REV03	
SIZE:	N/A	DATE:	Thursday, October 14, 2021
		SHEET	1 OF 1

LT8376

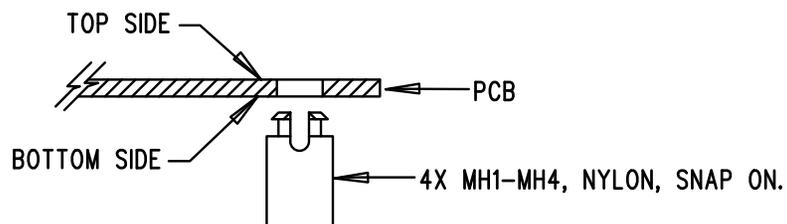
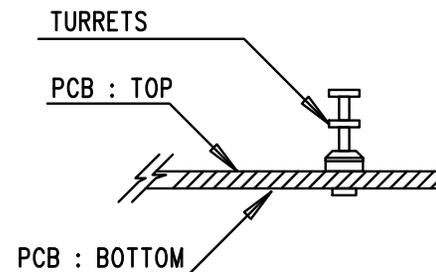
60V, 2A SYNCHRONOUS BUCK LED DRIVER EVAL-LT8376-AZ





NOTES: UNLESS OTHERWISE SPECIFIED

1. WORKMANSHIP SHALL BE IN ACCORDANCE WITH IPC-A-610. MAXIMUM SOLDER TEMPERATURE IS 240 DEG C.
2. ASSEMBLY PROCESS SHALL INCLUDE: REFLOW SOLDER TOP SIDE SMD.
3. PARTS TO OMIT WILL BE SPECIFIED ON THE BILL OF MATERIALS. LOCATIONS OF OMITTED PARTS SHALL BE FREE OF SOLDER. MASK THE SOLDER STENCIL WHERE SMT PARTS ARE OMITTED.
4. INSTALL SHUNTS AS SHOWN ON ASSY DRAWING.
5. DEPANELIZE BOARDS AFTER ASSEMBLY AND ROUTE-OUT THE BREAKOUT TABS ON FOUR SIDES OF THE BOARD EDGE.
6. DO NOT APPLY ANY KIND OF ASSEMBLY STAMP OR QA STAMP TO ANY BOARD.
7. INSTALL TURRETS AND STANDOFFS AS SHOWN BELOW:



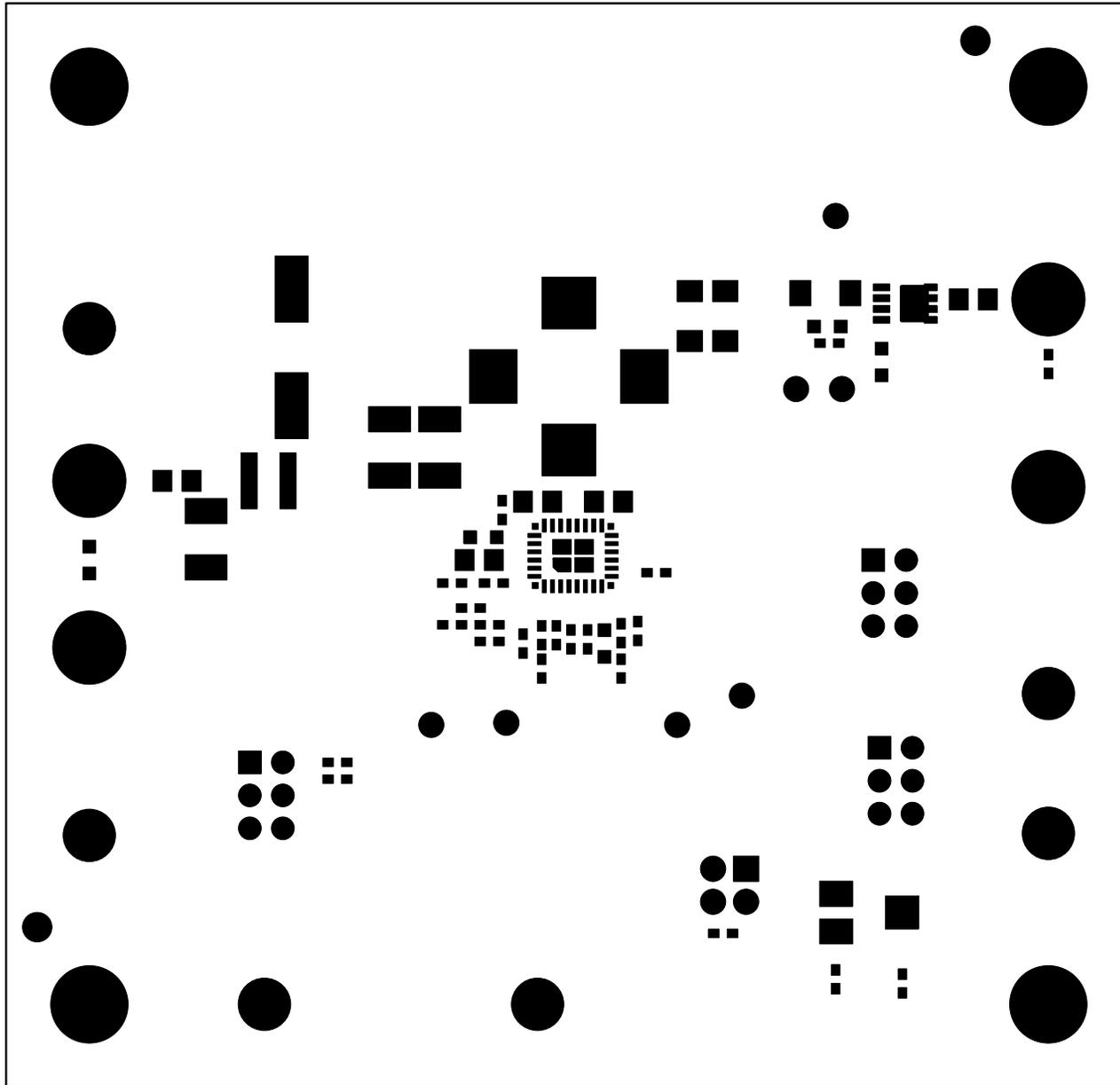
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TITLE: TOP ASSEMBLY DRAWING

60V, 2A SYNCHRONOUS BUCK LED DRIVER

SIZE N/A	IC NO. LT8376JV EVAL-LT8376-AZ	REV. 3
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FILENAME:	SHT 1 OF 1
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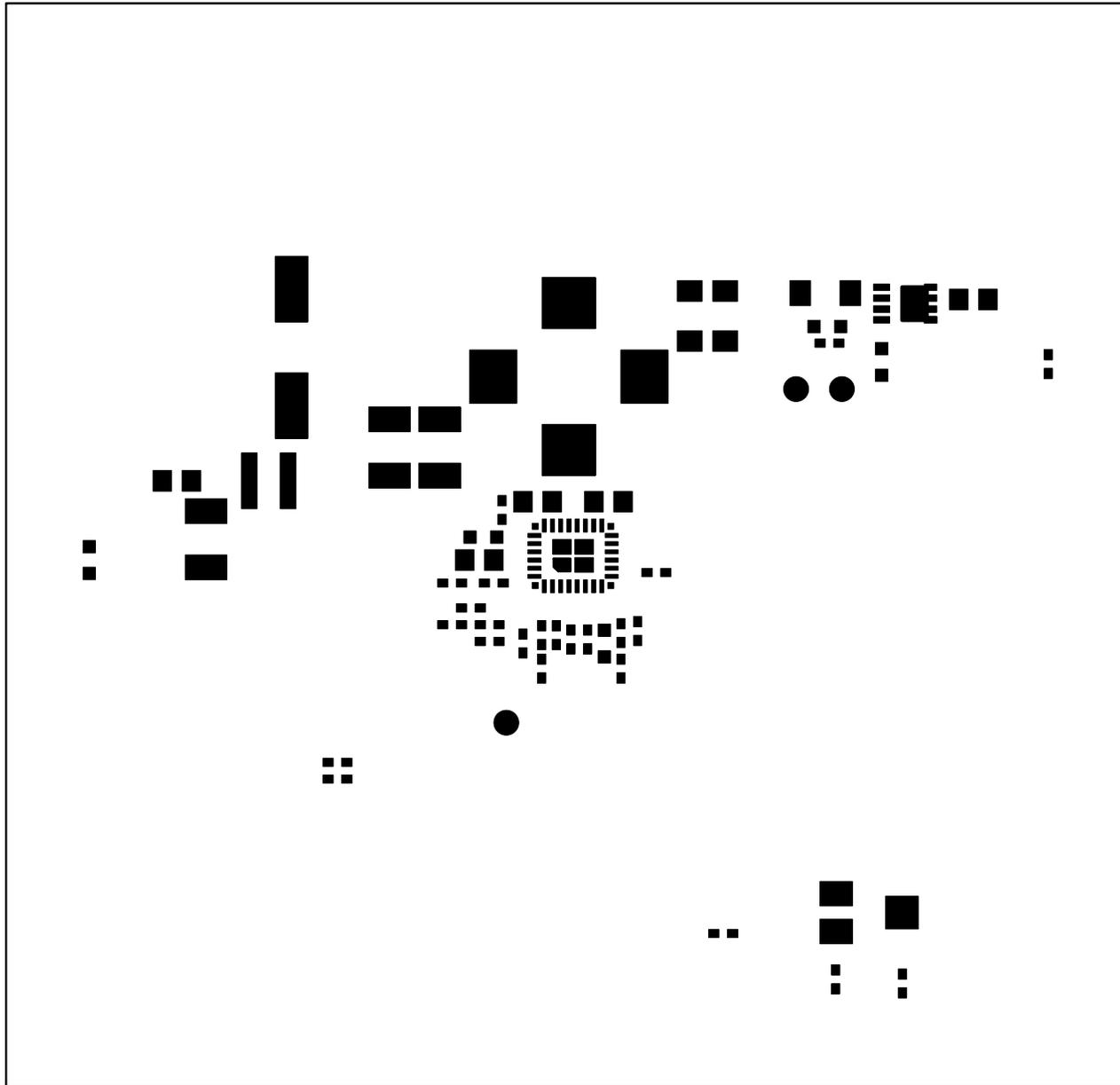


TOP SOLDER MASK

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EVAL-LT8376-AZ-3, LT8376RV

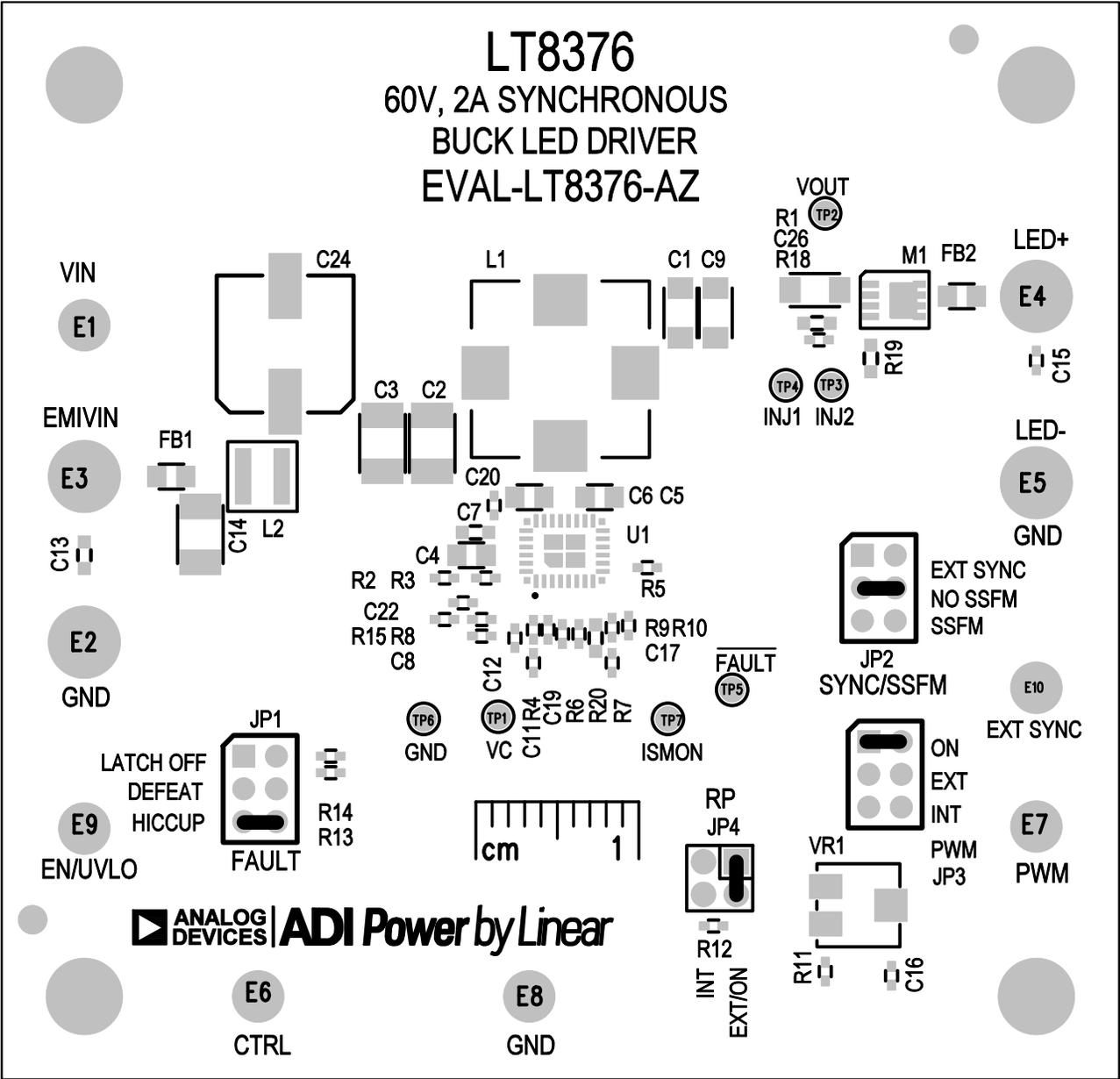


TOP SOLDER PASTE

ANALOG DEVICES

DATE: 10-13-2021

EVAL-LT8376-AZ-3, LT8376RV



TOP SILKSCREEN

ANALOG DEVICES

DATE: 10-13-2021

EVAL-LT8376-AZ-3, LT8376RV